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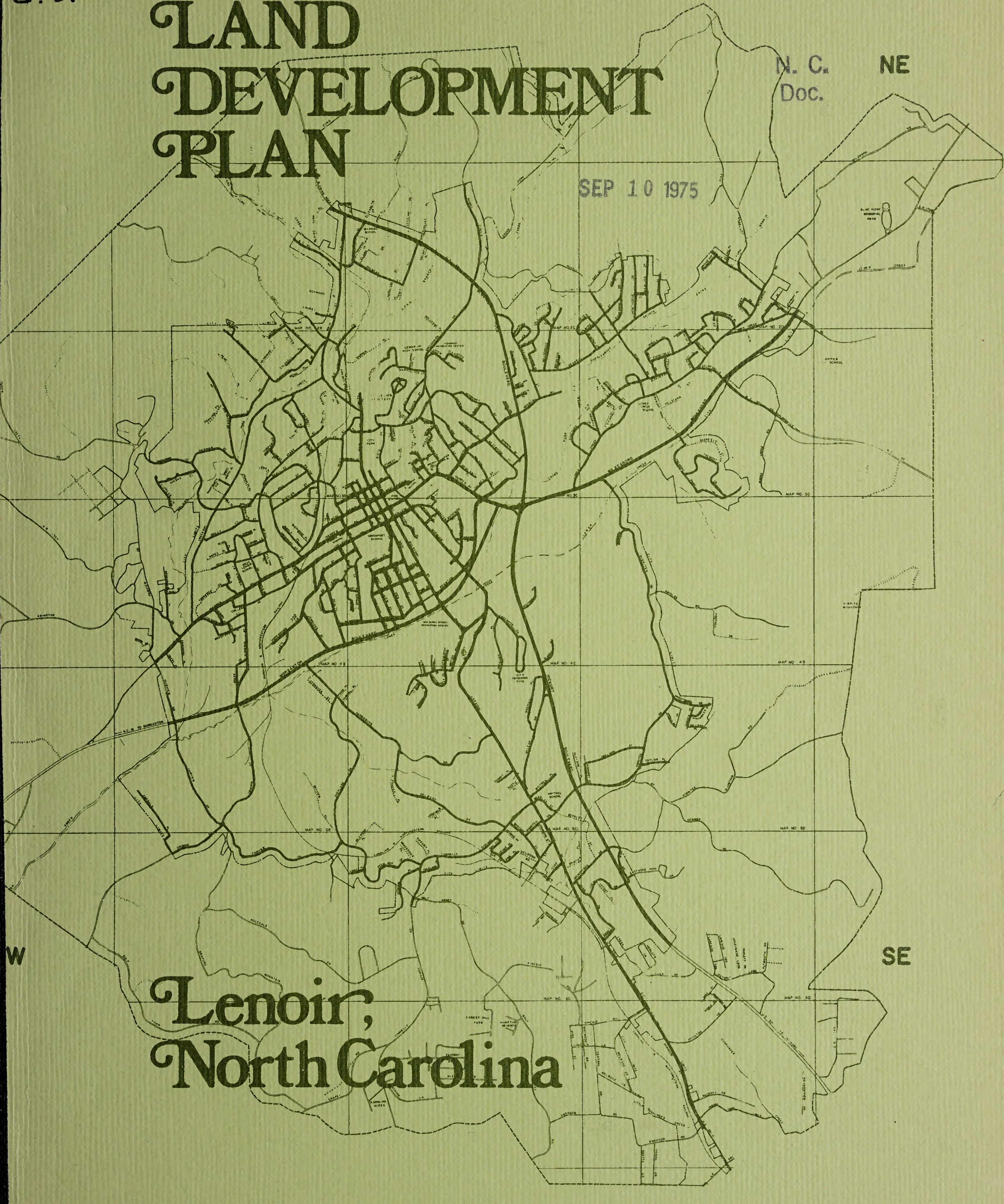
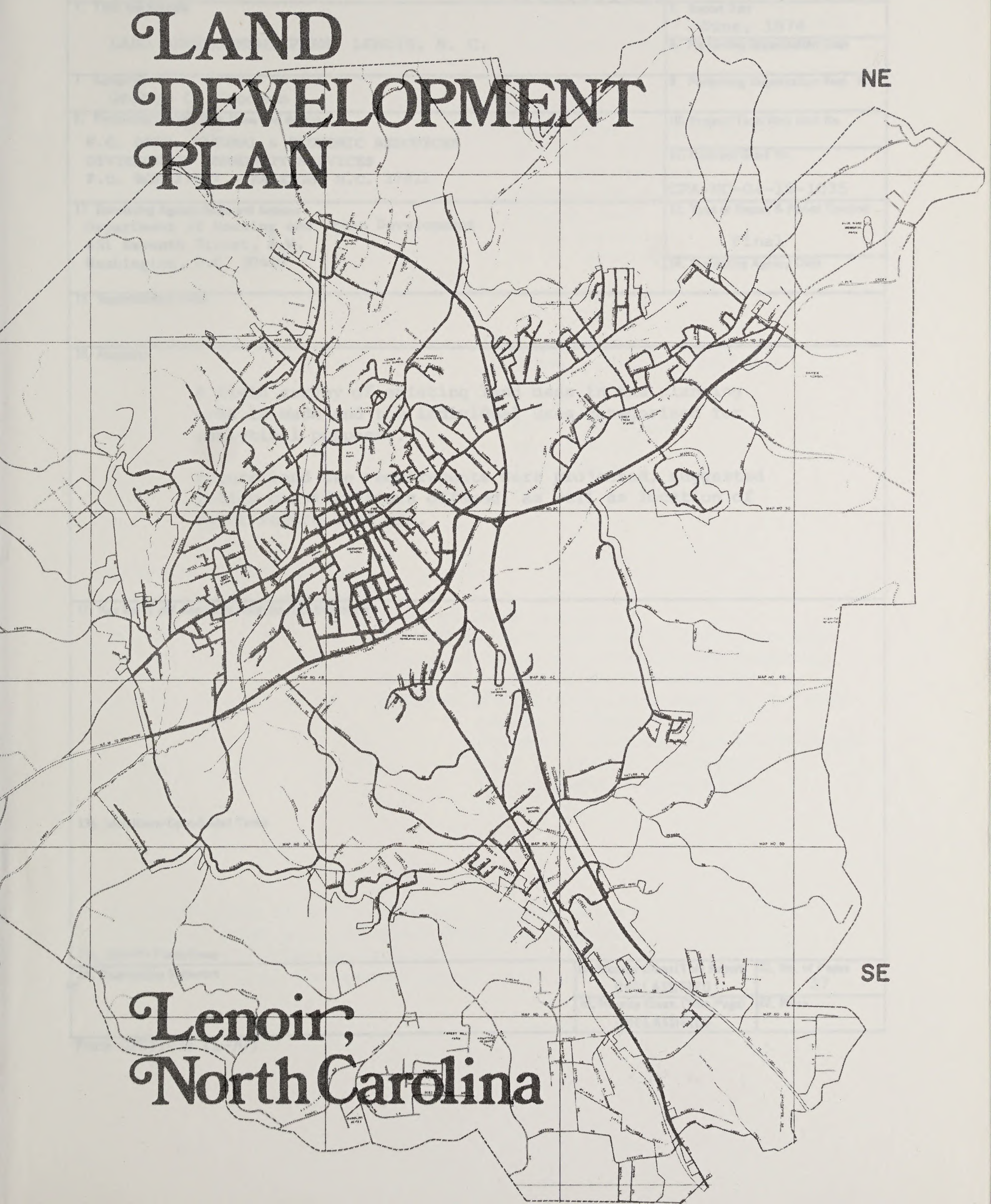


Lenoir, North Carolina

LAND DEVELOPMENT PLAN



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Future land use requirements were projected, suggested policy considerations offered, as well as location of major future land use.

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Chapter 1

CHAPTER I

INTRODUCTION

PURPOSE

The intent of this study is to construct a plan to guide the development of Lenoir and its two mile perimeter planning area in an orderly manner.

Estimated land use requirements computed from projected population statistics will formulate Lenoir's expected future land use needs. Factors such as existing land use, topography, transportation, public services and facilities, soils and amount of open space all help determine the placement of future land use needs. Obviously, an alteration or substantial change in any of these factors or projections will affect future land use needs and placements.

METHODOLOGY

This study divides Lenoir into ten study areas and the perimeter (two miles) into sixteen areas, of which Lenoir and the one mile perimeter is shown on Map 1. The land use for the study areas within the boundary of Lenoir was taken from a windshield survey conducted in 1971, categorized and acreage determined by a polar planimeter. Land use for the sixteen study areas outside the municipal boundary was done in March, 1974, utilizing the same method.

Presently Lenoir is not exercising one or two mile extraterritorial jurisdiction; however, this study will examine those areas because the city anticipates extending control over those areas and should do so to provide residents with needed services and protection.

POPULATION TREND SUMMARY

Table 1 shows that Lenoir's growth rate doubled Caldwell County's between 1950-1960 and 1960-1970. During that same period, Lenoir's population total increased percentagewise from 18.1% of the total county population in 1950, to 25.9% in 1970. (A 1969 annexation by Lenoir contributed to the substantial increase between 1960-1970.)

Table 1 Population Trends, Lenoir, N. C. & Caldwell County

Year	City of Lenoir	Percent Change	Caldwell County	Percent Change	City as Percent of County	Region E
1950	7,888		43,352		18.1%	
1960	10,275	30.2	49,552	14.3	20.7%	
1970	14,705	43.1	56,699	14.4	25.9%	
1980	16,930[1]					266,000[2]
1990	19,150[1]					299,100

Source: 1. Lenoir Planning Department
2. U. S. Department of Commerce, Regional Analysis Projection System, Bureau of Economic Analysis.

Indicated in Table 2 is the total number of households in Lenoir, Caldwell County and Region E (Catawba, Burke, Caldwell and Alexander Counties). Lenoir had the greatest increase of household numbers among the group, although the persons per household was the lowest.

Table 2 Number of Households, Lenoir, Caldwell County, Region E

	No. of Households		% Change in Households	Persons Per Household	
Unit	1960	1970	1960-1970	1960	1970
Lenoir	2,932	4,613	57.3	3.47	3.17
Caldwell Co.	12,980	16,833	29.7	3.80	3.35
Region E	51,008	68,248	33.8	3.63	3.25

Source: N. C. State Statistical Abstract: Office of State Budget, Dept. of Administration, 1973.

ECONOMY SUMMARY

Labor Force Participation & Unemployment Rate

Two useful measurements in evaluating employment are the participation and unemployment rates. The overall participation rate has been calculated for Lenoir and further broken down by sex composition. The participation rate compares an economically active age group (in this case, the labor force over age 16) with the total population in that age group. The rate is calculated as follows:

$$\frac{\text{Labor force in age (sex) group}}{\text{Total population in age (sex) group}} \times 100$$

The participation rate for Lenoir is high at 62.5 for both male and female. The 80.8% participation rate for males is a strong indicator for employment opportunities for males. The 46.9% participation rate for females in the labor force reflects the presence of significant employment opportunities for females in Lenoir as shown in Table 3.

Table 3 Labor Force Participation & Unemployment, Lenoir, N. C.

Location	Total	Employed	Participation Rate of Total	Unemployed	Unemployment Rate
Lenoir	10,291	6,441	62.5	163	2.5
Male	4,758	3,844	80.8	51	1.3
Female	5,533	2,597	46.9	112	4.3

Source: U. S. Dept. of Commerce: Bureau of the Census, Census of Population, 1970

Unemployment rates measure the members of the labor force who are out of jobs but seeking new employment. The unemployment rate is an assessment of the overall strength and viability of the economy. Economists at the national level consider a 4% unemployment rate approximately "full employment" in a highly mobile work force. Thus, a 2.5% unemployment rate indicates full employment and one in which the competition for labor is high.

Income and Employment Source

Income relates to the effective buying power and general well being of a population. In Lenoir 65.2% (2,596) of the families have incomes less than $10,000. Table 4 relates the income distribution for Lenoir families.

Table 4 1970 Income Distribution for Families, Lenoir, N. C.

Income	Number of Families	Percent
0 - 4,999	910	22.8
5,000 - 9,999	1686	42.3
10,000 - 24,999	1272	31.9
25,000+	111	2.7

Source: U. S. Department of Commerce, Bureau of Census, Census of Population, 1970

Based on this data, Lenoir's residents do not have a large disposable income to spend on goods and services other than necessities.

It is estimated that 479 families (12% of all families) had incomes below the poverty level (3,419). The median family income for Lenoir families was $7,902 in 1969 and the per capita income was $2,691.

It can, therefore, be assumed that Lenoir's "full employment" status and low income statistics indicate low wages.

Chapter 2

CHAPTER II

EXISTING LAND USE AND ANALYSIS

This chapter examines the current physical formation of land uses in the city and two-mile perimeter area. The data presented for the city limits is taken from Lenoir's Neighborhood Analysis (written in 1971 by Traffic & Planning Associates). These statistics are still reliable because there has not been a substantial change in the overall land use. However, statistics for outside the city limits, but within the two-mile perimeter area were obtained in March, 1974, by field survey conducted by Lenoir's Planning Department. The two-mile area adds sixteen (16) study areas to Lenoir's previous ten (10). The data obtained within the two-mile area gives the major categories of use and acreage while the data inside the city boundary classifies structural (sound, deteriorating, dilapidated) conditions.

The purpose of land using an area is to obtain, record and analyze an area's land use patterns. This data forms the basis for the Land Development Plan.

LAND USE CLASSIFICATION

For analytical purposes and coordination of Lenoir's zoning district classifications, the land use data is categorized as:

Residential

Single-Family - One family detached structure.

Two-Family or Duplex - Two family detached structure.

Multi-Family - Structure or structures which house more than two dwelling units.

Mobile Home - Mobile structure used as residence.

Commercial

Neighborhood Business - Neighborhood stores serving nearby residents.

Highway Business - Highway business: activities designed to serve the special needs of the traveling public or requiring large lots along major thoroughfares;
- Shopping centers: planned shopping center outlets along major thoroughfares;
- General business: commercial activities dispensing retail goods and services on the fringe of the CBD or along major thoroughfares.

Central Business District - Retail shopping, consumer services, financial and governmental center in a downtown area.

Social and Cultural

Includes all establishments providing for the mental development or cultivation of persons within the community and for the social betterment of the community. For example, schools and research institutions, cemeteries, penal institutions, parks, playgrounds, churches, public housing, etc.

Establishments providing for the mental and physical care of the community and engaged in the science and art of preventing, curing or alleviating disease, including hospitals and the mental health complexes.

SELECTED LAND USE BY PLANNING DISTRICTS

The statistics and description shown in Table 5 for ten (10) areas within the city boundary are extracted from the 1971 Neighborhood Analysis for Lenoir. The land use statistics are divided into ten categories depicting the total acreages of each category and the percentage that each category is of both the total area as well as of the developed areas. In addition, the percent of developed land in each area is shown. This is helpful in determining the amount of undeveloped land remaining and the type of uses already developed.

Statistics for the sixteen (16) areas delineated in the two-mile perimeter area are shown in Tables 6 and 7. Table 6 is an analysis of the one (1) mile perimeter and Table 7 is an analysis of the two (2) mile perimeter. These tables indicate the categories of land use and total acreages in each area.

Illustrated by Table 8 is a ranking by area from the "highest" use to the "least" for the following items: Percent Developed Land, Single Family as Percent of Total Area, Commercial as Percent of Total Area and Industrial as Percent of Total Area.

As depicted, Area 1 (the Central Business District) has the highest percentage of developed land, with 84.5%, and its predominant commercial use is the highest percentage of total area. Area 7's industrial use has the highest percentage of total area developed for that classification, with 23.8%, while area 8's 50.6% development is the highest percent of total area developed for single family purposes.

Table 5 Land Use by Planning Districts, Lenoir, N. C.

	Area 1			Area 2			Area 3			Area 4			Area 5		
Land Use Statistics	Acres	% of Total Area	% of Dev. Area	Acres	% of Total Area	% of Dev. Area	Acres	% of Total Area	% of Dev. Area	Acres	% of Total Area	% of Dev. Area	Acres	% of Total Area	% of Dev. Area
Residential															
Single-Family	30.0	19.9	23.5	293.7	31.4	51.3	308.2	28.54	60.19	103.6	12.9	62.1	104.1	19.7	27.0
Multi-Family	7.1	4.7	5.6	13.1	1.4	2.3	65.5	5.28	11.65	-	-	-	1.3	0.2	0.3
Commercial	11.0	7.3	8.6	24.4	2.6	4.3	30.3	2.90	5.40	4.2	0.5	2.5	25.3	4.8	6.6
Service	6.7	4.4	5.3	2.4	0.3	0.4	4.1	0.39	0.76	-	-	-	7.9	1.5	2.1
Wholesale & Storage	4.4	2.9	3.5	3.2	0.3	0.6	0.4	0.03	0.80	-	-	-	1.5	0.3	0.4
Professional & Government	4.6	3.1	3.6	68.7	7.3	12.0	5.0	0.48	1.05	-	-	-	14.7	2.8	3.9
Social & Cultural	17.8	11.8	14.0	69.0	7.4	12.0	21.5	2.06	3.44	-	-	-	15.5	2.9	4.0
Industrial	10.3	6.8	8.1	35.5	4.0	6.5	15.1	1.45	2.19	-	-	-	120.7	22.9	31.5
Transportation	35.5	23.6	27.8	59.8	6.4	10.4	81.6	6.83	15.24	55.6	7.0	33.4	88.2	6.7	23.1
Utilities	-	-	-	1.2	0.1	0.2	-	-	-	-	-	-	4.0	0.8	1.1
Vacant Land	23.3	15.5	-	363.8	38.8	-	569.5	52.04	-	631.4	79.2	-	144.9	27.4	-
Total	150.7			936.8			1042.2			798.1			528.1		
Percent Dev. Land		84.5			61.2			45.3			20.9			72.6	
Structures Per Residential Acre		32.6			2.94			1.55			1.53			2.76	

Land Use Statistics	Area 6			Area 7			Area 8			Area 9			Area 10		
Residential															
Single-Family	209.8	19.48	49.36	132.7	14.2	27.0	201.2	50.6	65.7	84.5	31.5	68.4	197.5	33.0	68.9
Multi-Family	012	0.01	0.05	1.5	0.2	0.3	6.5	1.6	2.1	1.4	0.5	1.1	0.7	0.1	0.2
Commercial	8.0	0.76	1.88	5.5	0.6	1.1	17.4	4.3	5.7	1.6	0.6	0.6	6.3	1.0	2.2
Service	5.2	0.48	1.22	1.6	0.2	0.3	6.3	1.8	2.0	0.6	0.2	0.5	0.6	0.1	0.2
Wholesale & Storage	0.4	0.04	0.09	1.3	0.1	0.3	-	-	-	-	-	-	1.4	0.2	0.5
Professional & Government	-	-	-	3.6	0.4	0.7	9.4	2.4	3.2	0.9	0.3	0.7	-	-	-
Social & Cultural	112.9	10.47	26.57	3.8	0.4	0.8	31.6	7.9	10.3	6.9	2.8	5.5	8.6	1.4	3.0
Industrial	10.9	1.01	2.56	223.1	23.8	45.4	5.6	1.4	1.8	1.2	0.4	0.4	26.2	4.4	9.1
Transportation	66.2	6.14	15.57	85.3	9.1	17.3	28.3	7.1	9.2	27.1	10.1	22.8	43.5	7.5	15.2
Utilities	11.5	1.06	2.70	33.6	3.6	6.8	-	-	-	-	-	-	2.0	0.3	0.7
Vacant Land	652.3	60.50	-	443.9	47.4	6.8	91.2	22.9	-	143.7	53.6	-	311.0	52.0	0.7
Total	1077.4			935.9			397.5			267.9			597.8		
Percent Dev. Land		39.5			52.6			77.0			46.3			48.0	
Structures Per Residential Acre		1.49			2.72			2.83			2.77			3.26	

Source: 1971 Neighborhood Analysis

Table 6 1 Mile Perimeter Analysis

Area No.	11		12		13		14		15		16	
	Structures	Acres	Str.	Acres	Str.	Acres	Str.	Acres	Str.	Acres	Str.	Acres
Single-Family	386	258.26	205	206.39	144	171.74	479	227.81	532	446.47	267	316.11
Sub-Total	386	258.26	205	206.39	144	171.74	479	227.81	532	446.47	267	316.11
Commercial			2	1.37	3	1.83	8	70.02	7	5.28	10	9.87
Sub-Total		0	2	1.37	3	1.83	8	70.02	7	5.28	10	9.87
Social & Cultural	1	3.44	4	90.21			2	6.66	2	11.02	8	18.82
Sub-Total	1	3.44	4	90.21		0	2	6.66	2	11.02	8	18.82
Industrial	1	4.36	7	57.35	2	10.79	7	14.92	3	49.81	6	185.48
Sub-Total	1	4.36	7	57.35	2	10.79	7	14.92	3	49.81	6	185.48
Right-of-Way												
Streets		61.29		52.67		39.26		67.26		70.24		75.07
Railroads										7.35		
Utilities								12.85		10.99		21.07
Sub-Total		61.29		52.67		39.26		80.11		88.58		96.14
Total Land in Use	388	327.35	218	407.99	149	223.62	496	399.52	544	601.16	291	626.42
Total Land Vacant		1327.55		904.77		1531.11		711.09		660.40		1186.42
Total		1654.90		1312.76		1754.73		1110.61		1261.56		1812.84

Area No.	17		18		Total Structures	Total Acres
Single-Family	227	224.05	218	194.67		
Sub-Total	227	224.05	218	194.67	2458	2045.50
Commercial	9	6.89	2	.69		
Sub-Total	9	6.89	2	.69	41	95.95
Social & Cultural	5	5.74	6	20.89		
Sub-Total	5	5.74	6	20.89	28	156.78
Industrial	9	37.88	4	18.59		
Sub-Total	9	37.88	4	18.59	39	329.18
Right-of-Way						
Streets		66.26		63.02		
Railroads						
Utilities						
Sub-Total		66.26		63.02		556.51
Total Land in Use	250	340.82	230	307.04	2566	3233.92
Total Land Vacant		949.77		1054.58		8325.69
Total		1290.59		1361.62		11559.61

Source: Lenoir Planning Dept.

Table 7 2 Mile Perimeter Analysis

Area No.	19		20		21		22		23		24	
	Structures	Acres	Str.	Acres	Str.	Acres	Str.	Acres	Str.	Acres	Str.	Acres
Single-Family	91	41.78	84	38.57	72	33.06	242	111.11	382	175.39	227	104.22
Mobile Homes	23	2.64	13	1.49	7	.80	65	7.46	55	6.31	36	4.13
Sub-Total	114	44.42	97	40.06	79	33.86	307	118.57	437	181.70	263	108.35
Commercial	2	.51			2	.04	2	.26	3	.14	6	.19
Sub-Total	2	.51			2	.04	2	.26	3	.14	6	.19
Social & Cultural	3	1.9	1	1.0	1	2.5	2	2.3	2	2.76	3	7.6
Sub-Total	3	1.9	1	1.0	1	2.5	2	2.3	2	2.76	3	7.6
Industrial	2	.69			1	1.32	7	3.67				
Sub-Total	2	.69			1	1.32	7	3.67				
Right-of-Ways												
Streets		49.58		39.94		19.97		74.38		82.64		77.13
Railroads												11.00
Utilities										26.17		
Sub-Total		49.58		39.94		19.97		74.38		108.81		88.13
Total Land in Use	121	97.10	98	81.00	83	57.69	318	199.18	442	293.41	272	204.27
Total Land Vacant		2475.58		2436.58		1357.09		1353.33		2325.18		1840.65
Total		2572.68		2517.58		1414.78		1552.51		2618.59		2044.92

Area No.	25		26		Total Structures	Total Acres
Single-Family	184	84.48	174	79.89	1456	
Mobile Homes	33	3.78	33	3.78	265	
Sub-Total	217	88.26	207	83.67	1721	698.89
Commercial	6	.42	4	.11	25	
Sub-Total	6	.42	4	.11	25	1.67
Social & Cultural	2	2.2	4	2.5	18	
Sub-Total	2	2.2	4	2.5	18	22.76
Industrial			3	1.17	13	
Sub-Total			3	1.17	13	6.85
Right-of-Ways						
Streets		89.53		78.51		
Railroads				11.47		
Utilities						
Sub-Total		89.53		89.98		560.31
Total Land in Use	225	180.41	218	177.43	1777	1290.49
Total Land Vacant		1705.88		3116.99		16605.28
Total		1886.29		3294.42		17895.77

Source: Lenoir Planning Dept.

Table 8 Area Ranking for Selected Categories

Percent	Area 1	Area 8	Area 5	Area 2	Area 7	Area 10	Area 9	Area 3	Area 6	Area 4
Dev. Land	84.5	77.0	72.6	61.2	53.6	48.0	46.3	45.3	39.5	20.9
Single-Family	Area 8	Area 10	Area 9	Area 2	Area 3	Area 1	Area 5	Area 6	Area 7	Area 4
% of Total Area	50.6	33.0	31.5	31.4	28.5	19.9	19.7	19.5	14.2	12.9
Commercial	Area 1	Area 5	Area 8	Area 3	Area 2	Area 10	Area 6	Area 7	Area 9	Area 4
% of Total Area	7.3	4.8	4.3	2.9	2.6	1.0	0.7	0.6	0.6	0.5
Industrial	Area 7	Area 5	Area 1	Area 10	Area 2	Area 3	Area 8	Area 6	Area 9	Area 4
% of Total Area	23.8	22.9	6.8	4.4	4.0	1.5	1.4	1.0	0.4	No percentage indicated

Table 9 One Mile Perimeter Area Ranking of Use and Acreage

Rank	1st	2nd	3rd	4th	5th	6th	7th	8th
Total Land	Area 13	Area 11	Area 16	Area 18	Area 17	Area 12	Area 14	Area 15
Vacant	1531.11	1327.55	1186.42	1054.58	949.77	904.77	711.09	660.40
Total Land	Area 16	Area 15	Area 12	Area 14	Area 15	Area 11	Area 18	Area 13
Use	626.42	601.16	407.49	399.52	340.82	327.35	307.04	223.62
Total	Area 15	Area 14	Area 11	Area 16	Area 17	Area 18	Area 12	Area 13
Structures	544	496	388	291	250	230	218	149
Total	Area 16	Area 13	Area 11	Area 18	Area 12	Area 17	Area 15	Area 14
Acreage	1812.84	1754.73	1654.90	1361.62	1312.76	1290.59	1261.56	1110.61

Source: Lenoir Planning Department, 1974; Division of Community Services, 1974

Table 10 Two-Mile Perimeter Area Ranking of Land Use and Acreage

Rank	1st	2nd	3rd	4th	5th	6th	7th	8th
Total Land	Area 26	Area 19	Area 20	Area 23	Area 24	Area 25	Area 22	Area 21
Vacant	3116.99	2475.58	2488.58	2325.18	1840.65	1705.88	1363.33	1357.09
Total Land	Area 23	Area 24	Area 22	Area 25	Area 26	Area 19	Area 20	Area 21
Use	293.41	204.27	199.18	180.41	177.43	97.10	81.00	57.67
Total	Area 23	Area 22	Area 24	Area 25	Area 26	Area 19	Area 20	Area 21
Structures	442	318	272	225	218	121	98	83
Total	Area 26	Area 23	Area 19	Area 20	Area 24	Area 25	Area 22	Area 21
Acreage	3274.42	2618.59	2572.68	2517.58	2044.92	1886.29	1552.51	1414.78

Source: Lenoir Planning Department, 1974; Division of Community Services, 1974

Tables 9 and 10 rank by area in the one and two-mile perimeter respectively, the amount of vacant land, land in use, total structures and total acreage. The rank of "1" means the highest in that category, and 8, the least.

As shown in Table 9, Area 13 has the highest amount of vacant land, with 1531.11 acres, while Area 15 has the least, with 660.40 acres. Area 16 (626.42 Acres) has the greatest amount of land in use, while Area 13 (223.62 acres) has the least. The greatest number of structures is found in Area 15 (544) and the least number is found in Area 13 (149). More acres of land are located in Area 16 (1812.84), while the least is in Area 14 (1110.61).

Depicted in Table 10 is the same ranking system as shown in Table 9, except the former is for the two-mile perimeter area. Table 10 shows the largest amount of vacant land is in Area 26 (3116.99 acres) and the least amount is found in Area 21 (1357.09 acres). More land is being used in Area 23 (293.41 acres), while Area 21 (57.67 acres) is utilizing the least. Area 23 has more structures with 442, and Area 21 has the fewest, with 83. More acreage is found in Area 26 (3274.42 acres), while Area 21 (1414.78 acres) contains the least.

Tables 9 and 10, when viewed with the map delineating the areas, give a visual image and statistics on the total area.

Additional information and/or discussions pertaining to any land use statistics shown in Tables 3 through 8 are found in Lenoir's 1971 Neighborhood Analysis. A discussion of the general characteristics of each area within the city, as well as community facilities, housing and structural conditions and characteristics may also be found in the Analysis. To avoid additional duplication, please refer to the 1971 document.

ACREAGE BY ZONING DISTRICTS

Figures in Table 11 show 1971 acreage by zoning districts within the municipal boundary. Lenoir has not exercised its extraterritorial jurisdiction; therefore, no figures are available for that area.

These figures indicate more acres zoned R-15 (1,666.8) followed by R-20 (1,007.5) than any other single category. The fewest acres zoned is B-4 (Central Business District, 29.2), followed by P-1 (Office Institution, 35.3).

Table 11 Synopsis of Uses by Zones

Zone	Acres	Square Miles
R-20	1,007.5	1.5
R-15	1,666.8	2.6
R-11	600.8	1.9
R-9	952.9	1.4
R-7	225.4	.4
R-5	462.8	.7
RMF	95.7	.2
P-1	35.3	.1
B-1	66.6	.1
BC-1	54.4	.1
B-2	225.1	.3
B-3	40.9	.1
B-4	29.2	.1
B-5	370.3	.5
M-1	517.7	.8
EM-1	371.0	.6
Total	6,722.4	10.5

Source: Lenoir Planning Department, 1971

THOROUGHFARE PLAN

Lenoir's Thoroughfare Plan is being prepared in cooperation with the Advance Planning Section of the North Carolina Department of Transportation. A public meeting on the proposed Thoroughfare Plan was held March 20, 1974 to receive input from the public. The written report is not completed, however, recommendations suggested at the public meeting are listed with the following priorities:

First Priority (included in seven year plan)

-- Widen U.S. 321 North from N.C. 18 to N.C. 268
-- Construct southwest outer loop from Harper Ave. crossing N.C. 18, SR 100 and U.S. 321A to a point south of Smith Crossroads on Hwy. U.S. 321.

Second Priority

-- Widen Norwood Street (probably to a four-lane facility) from N.C. 18 to Hudson
-- Construct crossover south of Smith's Crossroads from Hwy. 321 to Morganton Boulevard
-- Widen Harper Street from Norwood Street to Hwy. 18.

Third Priority

-- Widen Main Street to three lanes from Ashe Street to Hwy. 321.
-- North-south radial route from Willow to SR 1001 (Connelly Springs Road) via Spruce Street.

Chapter 3

Fourth Priority

-- Inner loop around the CBD.

CHAPTER III

SPECIAL LAND DEVELOPMENT PROBLEMS

Flood Plain Information

The U. S. Army Corps of Engineers has prepared Flood Plain Information, 1970, for the City of Lenoir. In this section of the Land Development Plan, excerpts from the Flood Plain Study citing the locations of areas subject to flooding and prevention measures recommended will be restated.

The description of the streams states:

> "All of Lenoir's streams flow in a generally southwesterly direction. Lower Creek, joined by Zacks Fork Creek, flows through residential and commercial areas of southeastern Lenoir. There is presently much valuable property located in the Lower Creek flood plain including homes, shopping centers, manufacturing plants, businesses, churches and other buildings. Blair Fork, joined by Long Branch north of the city limits, flows through several residential areas on the west side of town. A majority of the structures now located in the flood plains have been built within the past 10 years and development of these areas is likely to continue until regulatory measures are adopted."

The major recommendation affecting existing land use and future development patterns suggests the following:

> "Flood Damage Prevention Measures
>
> "Various measures may be employed to reduce or prevent flood damages. In flood plain areas where extensive development exists, it is usually necessary to construct protective features such as dams, dikes, floodwalls or increase channel capacity in order to effectively reduce damages. These measures are expensive and often provide only a limited degree of protection. A more effective and less costly method of flood damage prevention is through land use controls, often referred to as 'Flood Plain Regulations.' This approach is most effective when employed during the initial stages of development. Regulations do not attempt to reduce or eliminate

> flooding, but are designed to lessen the damaging effects of floods by controlling the extent and type of development which will be permitted in flood plain areas. These goals may be achieved through the use of zoning laws, subdivision regulations, building codes or other measures which will allow local government to control development."

For details concerning flooding in Lenoir, please refer to the study entitled Flood Plain Information, Lenoir, North Carolina.

ANNEXATION

The 1969 Annexation presented problems of mixed land use within Lenoir. This problem developed partially because Lenoir does not exercise extraterritorial jurisdiction. Should Lenoir begin to exercise control beyond its municipal boundaries, it will be able to control undesirable mixing of land use.

Lenoir must be aware of the implications of its annexation policies. Every time it annexes land, there will be great pressures to develop it in an urban character. Therefore, a factor such as the ability to serve the area should be carefully analyzed.

If there is a threat of undesirable mixed development, the City should annex with the intention of preserving areas as open space buffers. The main thought concerning annexing or enforcing controls within the two-mile planning area is to provide protective buffers and insure balanced growth through compatible growth guidelines and related regulatory measures.

Chapter 4

CHAPTER IV

LAND DEVELOPMENT PLAN

The Land Use Survey and Analysis is a record of past land development. Using this information as a guide, along with pertinent information from Population and Economy studies and related tabulations and analyses, the Land Development Plan reflects a carefully studied estimate of future land requirements. It indicates how development should proceed to insure a desirable physical environment. Also incorporated in this proposal is an explanation for the planned growth of the planning area. It programs the aspirations of the local citizens, and adheres to the highest standards of health, safety, convenience, economy and the best possible in urban environment.

A clarification of terms used is appropriate at the outset. There generally exists some confusion between the terms "land development plan" and "land use map." The following definitions are offered as a means of differentiating between the two terms:

LAND DEVELOPMENT PLAN - a proposal for the future use of land and the structures built upon the land. It embodies an array of principles and the assumptions and reasoning followed in arriving at this proposal. The Land Development Plan is a generalized but scaled presentation of a scheme for the future development of the urban area.

LAND USE MAP - a map showing how the land and structures on the land are used for urban purposes at a particular time, past or present. The Land Use Map is a factual description of the urban setting, usually as it exists today.

This Land Development Plan presents a general, but comprehensive, estimate of land use requirements relative to location and amount of land to be reserved for each public and private use; also this Land Development Plan can be utilized in the formulation of a master plan. A master plan includes not only systems of use areas but all forms of circulation and their terminal facilities, plus all types of utility requirements. Basically, the Land Development Plan provides an overall plan to guide operational decisions in planning and acts as a basis for rational decisions relating to zoning and subdivision control problems, urban renewal programs, and other problems, until the comprehensive plan is consummated. This Land Development Plan is helpful in such areas as land acquisition for public facilities. It provides guidance to private developers of large-scale developments. Both private and public agencies can utilize the Land Development Plan for the installation of utilities and transportation.

OBJECTIVES

The goals of the Land Development Plan, as outlined below, are general in nature. No attempt has been made to list the goals by priority, but they do reflect the values of sound planning activities. As the planning process unfolds there exists the opportunity to reevaluate the original goals both as to substance and priority. Planning is a continuous process and public reaction will provide the impetus for later revisions of objectives.

The following are the basic objectives of Lenoir's Land Development Plan:

To order Lenoir's planning area's development so as to promote the health, safety, welfare, and convenience of all members of the community;

To allocate land for future development (where and how much);

To promote orderly growth while preserving land use diversity in the city;

To create a plan which will be responsive to orderly growth and change;

To express the policies which will achieve the goals and aspirations of the community;

To create a plan which will be responsible to orderly growth and change;

To relate the use of land so that efficient, economical and orderly development will result for residential, commercial and industrial growth;

To further the development of the social, cultural, spiritual, aesthetic and economic values of the community;

To observe the highest standards in housing and community facilities;

To provide adequate recreational facilities and preserve open space;

To provide for the efficient movement of people and goods through a well-coordinated circulation system;

To coordinate the growth of the planning area with the surrounding areas;

To provide a good working and living environment through the coordination of public and private efforts;

To enhance the livability through coordinated use of codes and regulations involved with land development (zoning, subdivision, housing, building and others).

FUTURE QUALITATIVE LAND USE REQUIREMENTS

Two approaches must be considered in determining future land use requirements. The first considers the qualitative aspects of land use relationships and the desirable locational characteristics involved for each land use. The second is the quantitative approach. Although there are no standards which are generally applicable in determining the area of land required for each specific land use, there are minimum and maximum estimates which can be utilized for each land use. The flexibility of these estimates allows individual communities to vary the suggested standards to their requirements.

Estimates of space requirements are largely based on current needs and calculated to conform with legal requirements of zoning, subdivision, and housing ordinances. Accessory uses are included in the estimates and consider such needs as off-street parking, off-street zoning and landscaping. A generous allowance of land area is allowed as a safety factor. Although population projections and economic forecasts are of vital concern in determining future land use requirements, there always remains the possibility of unforeseen growth. A safety factor also allows for a discounting of land area which may prove to be unusable for its alloted use.

For the purpose of this general land development plan the land use classification categories have been divided into seven classifications. These seven classifications will now be considered according to their individual general qualitative requirements.

Residential

RURAL DENSITY. This type of residential development is located in Lenoir's one-mile and two-mile fringe area and is not served by municipal water and sewerage. Residential development there is mostly single-family, detached. The minimum lot size should be 20,000 square feet (approximately one-half acre). The N. C. State Health Department recommends lots of this size when private wells and septic tanks are utilized. In watershed areas, the minimum individual lot size is increased to 40,000 square feet.

LOW DENSITY. The low-density areas are located in or immediately adjacent to the city limits. Some of these areas are not served by water and sewer, but these facilities are in close proximity and could be extended without extreme expense. These residential areas should have a density of three to four dwelling units per acre and lot sizes should range from 10,000 to 15,000 square feet. These areas will accommodate single-family detached dwellings and duplexes.

MEDIUM DENSITY. These areas are located within the present incorporated area where public facilities are available. Residential development here includes single-family, duplexes, and multi-family dwellings. This area tends to surround the central business district, acting as a "buffer" between it and the low-density area. These areas should have a density of five to six dwelling units per acre and lot sizes should range from 7,000 to 9,000 square feet.

HIGH DENSITY. An area which has the public facilities to accommodate large multi-family complexes. The high density area is mainly located around the central business district, along major thoroughfares and at their intersections. Lot sizes are generally based on a sliding scale, that is, a minimum size (7,000 square feet) for the first one or two units, and then some smaller size (3-4,000 square feet) per each additional unit.

Locational characteristics for this land use should possess the following qualitative attributes:

-- Areas should be of sufficient size so that desirable residential densities can be maintained.

-- Neighborhoods should be isolated from through traffic, traffic generators and incompatible land uses.

-- Land with uneven topography should be utilized for residential purposes when possible, as this leads to more interesting home design, and uses land which would be unsuitable for commercial and industrial requirements.

-- Residential areas should be delineated by major thoroughfares or natural features which would serve as barriers or buffers from incompatible land uses.

-- Neighborhoods should be of a reasonable size instead of isolated pockets to prevent encroachment of incompatible land uses.

-- Neighborhoods should be located within convenient proximity to working and shopping areas, and should be tied together with thoroughfares to insure easy access.

-- Schools and recreation facilities should be located within neighborhoods to minimize the crossing of major thoroughfares by children and other pedestrians.

-- Controlling residential land area permits development of the neighborhood concept and also allows for more effective planning of recreation areas, commerce, and streets.

Commercial

The commercial land use in Lenoir falls roughly into three major categories. The central business district is the retail core of the area and also the financial and administrative center. Shopping centers are the second category and incorporate the subcategories of neighborhood, community and regional centers. Strip or ribbon commercial is the third category. These categories will be discussed in their respective order.

Central Business District

-- Should have adequate ingress and egress for traffic. This can be provided by proper connectors with a pattern of one-way streets adequate to move the traffic on a loop around the central business district.

-- Provision for off-street parking and off-street loading.

-- Integrate civic and private buildings.

-- Provide adequate land for pedestrian ways and utilize green area as a means of buffering zone for adjoining incompatible land uses. This can also act as a means of beautifying the CBD.

-- Correlate central business district activities with those on the periphery (suburbs).

Shopping Centers

-- Neighborhood Centers. These centers provide convenience goods such as foods, drugs, and personal services. Usually the major store is a supermarket. It services the immediate neighborhood.

-- Community Centers. A center of this type provides convenience goods, clothing, hardware, and household appliances. It services a community which comprises several neighborhoods.

-- Regional Centers. Comparative shopping items are furnished by this type of center. In addition to general merchandise they feature apparel, furniture, and home furnishings. The focal point of the center is a department store.

The following are qualities which all three centers should possess:

-- A site of sufficient land area to serve the particular type of center involved.

-- Access should be readily available by means of major thoroughfares.

-- Buildings should be grouped so as to operate as one functional unit. Freestanding commercial structures are not desirable.

-- Onsite parking should be provided and entrances and exits should be constructed so as not to cause traffic congestion. Marked parking spaces should be provided within easy walking distances of the stores.

-- Truck traffic and loading facilities should be separated from customer traffic.

-- Foot traffic should be separated from vehicular traffic. Protection from the elements should be afforded customers while shopping.

Strip Commercial

This type of commercial activity is usually a variety of commercial enterprises located on major arteries in a community. Sites are normally inadequate and they are freestanding units and do not form an integrated functional whole. These types of commercial activities should possess the following attributes:

-- They should provide only those services absolutely essential to the highway public.

-- Sites should be sufficient sizes to provide off-street parking and have entrances and exits which do not impede traffic on the major traffic artery.

-- Clustering of these units is preferable to intermingling them with incompatible uses.

-- Buffer zones should be provided to protect other incompatible land uses. Landscaping can also assist in making these enterprises more attractive.

Industrial

Lenoir must first decide the extent and location of industry it desires within its boundaries. This should be determined largely by locations best adaptable to industry and what areas are suitable for this type of land use. The determination of this decision should be based on the following criteria:

-- Sites should be located on land with a slope of preferably not more than five per cent.

- Sites should be easily accessible for plant workers. Location near interconnecting major highways is imperative. This provides access for employees as well as transportation facilities for trucking. Certain types of industries require locations that have railroad, waterways, or airports, and sometimes combinations of these three.

- Utilities of sufficient capacity and type are essential.

- Land area should incorporate adequate off-street parking and sufficient allowance for future plant expansions.

- Landscaping and buffer zones should be provided.

- Prevailing winds should be considered since dissipation of smoke and odors can be accomplished with as little inconvenience as possible.

- Off-street loading should be provided so as not to congest traffic on the surrounding streets.

Circulation

For the purpose of this report streets are divided into four categories. A brief definition of each type street follows and the major qualitative features are described.

Local Streets

This category of streets comprises those which are designed only to serve the traffic volume for the local area involved. These areas can be either residential, commercial or industrial. The streets are not meant to service any type of traffic collection. Desirable qualities for these streets are as follows:

- The major purpose should be to provide access to property abutting the public right-of-way for both pedestrian and vehicular traffic.

- Local streets should not carry through traffic. Heavy commercial vehicles should be prohibited from this type street except in commercial and industrial zones.

- Easements should be provided for all necessary utilities.

- Streets should not be unduly long and cross streets and intersections should not have acute angles.

- In commercial developments greater widths are necessary for local and land service streets.

-- Streets for industrial developments must be built according to whether truck trailers are maneuvered on or off the streets.

Collector Streets

The major function of the collector street is to bring traffic from local residential streets to arterials. Desirable attributes for these types of street are as follows:

-- Land access is a secondary function of collectors and the design and operation of this type street should reflect the traffic emphasis.

-- Parking should be prohibited and residential buildings should not face onto, or have driveways entering, the collector street.

-- Adequate space should be provided for easements or the location of utilities.

-- The cross section of collector streets must not be narrower than any of the local streets entering it.

-- Local streets should not cross the collector directly.

-- Planting should be held back from the street and sidewalks should be separated from the pavement by a wide tree lawn or esplanade. Sight distances at intersections should be adequate and no visual barriers near the corners.

-- A spacing of collector streets at approximately one-half mile intervals is desirable. Collectors should not be a continuous system since there would be a tendency to use them as arterials and thus fail to keep through traffic out.

Arterials

The first and most important function of arterials is to move automobiles, trucks and busses. Land access should be secondary function of arterials. Arterials should conform to the following standards:

-- Adequate space should be provided for easements or the location of utilities, and communication.

-- Parking should be prohibited.

-- Arterials should be designed primarily for traffic.

-- Median strips should be provided and access to abutting property provided by service roads.

-- Rights-of-way should be sufficiently wide to provide grade separations at intersections requiring them.

Freeways

Freeways are high-speed roads that are access-free and have grade separation interchanges. The freeway has one sole function which is to carry traffic. It should possess the following qualities:

-- Freeways should not be used as sites for public utilities or communication lines.

-- Construction of freeways close to the central business district should be avoided due to higher land costs and also because utility relocations and grade separations are more frequent.

Public Utilities

Public utilities are provided in response to present and future urban development. The qualitative aspects of public utilities change with increasing urbanization. Examples of these changes would be conversion from septic tanks to a sewerage system, wells to a municipal water supply, and many others. Four major categories of public utilities will be discussed and desirable qualitative features of each will be outlined.

Water Supply

-- Water should be free from bacteriological or other contamination.

-- It should be clear, colorless, odorless, and pleasant to the taste and contain a moderate amount of soluble mineral substances.

-- Treatment and periodic bacteriological analysis of the water should be conducted by State Health agencies.

-- Where fluoridation is desired it should be done in conjunction with water treatment.

-- Catchment areas and reservoirs should be reserved well in advance of regional development.

-- Water distribution system should assure continuity of service.

Sanitary and Storm Sewers

- Sewerage should be considered where land is divided into lots of less than one acre.
- Main sewers should be built on a projected population of the next twenty-five years.
- It is desirable to have both sanitary and storm sewers and not a "combined system."
- In extensive flat areas the flow should not be relied on by gravity alone but should be supplemented by pumping stations.
- Cooperation between governmental jurisdictions is desirable where gravity flow is influenced by the topography of several areas.
- A long-range solution to sewage collection and treatment should be established as a policy for urban fringe areas where new subdivisions are eminent. This is especially true where no sewer system exists.
- Area, and shape of watershed, rainfall intensity, ground slope, and character of ground cover must be considered in designing a system of storm sewers.
- A system of storm sewers should be based on a probable pattern of development over the next twenty-five years.
- Storm sewers should be designed based on the fact that infrequent storms may result in flooding.

Electric Power

- Electric generating plants should be confined to industrial districts.
- Along streets that are to be paved it is desirable to install house connections from underground utility lines to the curb before the street is surfaced.
- Joint use of facilities by several utilities is desirable in both streets and easements.
- Ideally, conductors should be placed in underground conduits. Adequate records should be kept of all underground facilities.

Refuse Disposal

- Kinds and amounts of refuse to be collected should determine the type of refuse disposal unit utilized.
- Careful selection of disposal sites will help in minimizing land use conflicts.

Recreation and Open Space

This category covers land which includes playgrounds, playfields, parks, and other open spaces which serve as areas in which people can conduct active and passive recreation activities. These areas also serve as buffer zones for noncompatible land uses and aid in breaking the monotony of a densely populated area. Plans should be correlated between the city and county government for joint participation as normally recreation facilities should be shared by all. The following concept should be adhered to in planning recreational areas:

- The topography of the site should fit the facility to be developed.
- The site should be large enough and properly located for efficient operation and maintenance. It should be quiet, clean, safe, and protected from strong winds, heavy traffic, and uncongenial development.
- Sites acquired in developed areas should entail the least demolition of buildings and dislocation of families.
- Active recreation areas should be separated according to the age groups that will use them and easily accessible to the people who will be using them.
- Recreational facilities should be combined with school facilities to serve as educational and recreational centers for neighborhoods, or groups of neighborhoods.

Public Buildings

This category includes those types of public buildings used for the conduct of government and the furnishings of essential public services. These may be constructed and operated by municipal, county, city, state, or federal government, or by a semi-public agency. Some of the more qualitative requirements are as follows:

- Locations should be where they function effectively and yet fit into the master plan.

-- Decision should be made as to whether buildings are to be freestanding or grouped.

-- Central type buildings should be easily accessible from all parts of the city.

-- The design layout should take into account the future growth of the services furnished, adequate parking, employee facilities, general utilities, public comfort, and aesthetic qualities.

The foregoing discussion of the qualitative aspects of land use relationships and locational factors should not be considered as exhaustive of all factors which might be considered. As the land development plan unfolds there will be other qualitative and locational factors to be considered.

FUTURE QUANTITATIVE LAND USE REQUIREMENTS

Estimates in Table 12 represent land use requirements in 1980.

Table 12 Future Land Use Requirements

	Acres Per 100 Population	Population Projected 1980	Acreage Needed 1980	Estimated Existing Land Use	Land To Be Allocated
Residential	11	16,930	1,862	1,617	275
Multi-Family	1.2	16,930	203	176	27
Commercial	1.5	16,930	253	185	68
Industrial	4	16,930	677	477	200

Source: Department of Natural and Economic Resources, Division of Community Services.

The requirements in Table 12 were derived by the following method: The acreage per 100 persons was determined by existing land use patterns as calculated by the Lenoir Planning Department. These factors were then multiplied by the projected 1980 population to determine future land use needs.

The 1980 land use requirements minus the existing 1970 acreage equals the net acreage needed to satisfy the growth anticipated by 1980.

Chapter 5

CHAPTER V

SUGGESTED POLICY CONSIDERATIONS

Any land development plan is only as effective as the enforcement of supportive ordinances and regulations, e.g., zoning, flood plain zoning, subdivision regulations and building codes.

In addition to regulatory controls, a development plan achieves purpose when policies are adopted to support its intent. Basically, a policy is a course of action adopted and pursued in attaining goals or achieving objectives.

The following are suggested items for which the City should consider developing policy statements. Such statements will form the framework on which the planning activities are conducted. Failure to develop policy statements will weaken Lenoir's ability to utilize efficiently and effectively its resources.

Economic Liabilities

While Lenoir has 100% "full employment" according to 1970 Census statistics, more than 65% of the families' income was less than $10,000 a year. The largest employment sector is manufacturing (of non-durables), a lower paying employer. Therefore, a policy seeking to raise the family income by soliciting higher paying industries would set in motion plans to accomplish that goal.

Physical Liabilities

Two physical features which can hamper and/or burden development in Lenoir are traffic circulation and flooding. At this writing, a Thoroughfare Plan is being prepared for Lenoir. Upon its acceptance, a policy with related action to insure its implementation would lessen present and future circulation problems.

Unless a Flood Plain Zoning Ordinance is adopted and enforced, the continued indiscreet development in these areas will worsen flood conditions considerably. Hence, a policy adopted and backed by an ordinance will insure the wisest use of land in these areas and greatly reduce damage to property and hazards to life.

Growth and Development

A fundamental decision which must be faced now and in the future is how much growth, what kind of growth and where should growth take place. Essentially, before deciding "NO Growth" or "Growth", the decision makers should "Know Growth".

The problems which limitless growth may allow are:

-- Congestion and overcrowded conditions.

-- Straining the physical and financial resources of the City, particularly where residential land use predominates, "bedroom communities", and revenues do not come about as fast as expenditures.

-- Haphazard undesirable and unaesthetic development that initiates urban sprawl.

-- Absorption of open space and other natural areas as pressure is placed to develop land indiscriminately.

-- More pollution of natural resources.

The problems experienced from no growth are:

-- Economic stagnation, unemployment and ultimately the loss of jobs.

-- Retrenchment of fiscal resources to pay for past and current public services.

-- Standstill incomes and standards of living.

Obviously, the answer is neither "growth" nor "no growth", but rather in a balanced growth policy that encompasses residential, commercial and industrial development which provides population, jobs, and an economic viable economy.

By reason of the above information, a policy(ies) denoting specific action to be taken to insure balanced growth is basic to orderly compatible development. Such policy(ies) should make some determination as to core and/or fringe development. Also, it should include a statement on annexation objectives.

As stated earlier, the above items are only suggestions which may be accepted, rejected, altered, or replaced. However, the point stressed is the need to develop goals and objectives placed in policy statements to be implemented.

Chapter 6

CHAPTER VI

FUTURE LOCATION OF MAJOR LAND USE

Residential

Planning areas outside the municipal boundary (areas 11 through 26) should develop at a rural density where no municipal water and sewerage exist. Regulations can be relaxed in areas where either of the services can be provided.

Areas in the municipal limits may be allowed to develop from medium to high density where public facilities are available. This type of residential development includes single-family, duplexes and multi-family dwellings. The zoning ordinance should be used to help determine the density. Should the population reach 16,930 by 1980, it is estimated that a minimum of 302 acres will be needed.

Commercial

The Central Business District (CBD) is and should continue to serve as Lenoir's major commercial area. Further controlled commercial development should be permitted along U.S. 321, N. C. 18 and Wilkesboro Boulevard as long as sites are sufficient to provide off-street parking and traffic is not impeded by entrances and exits to the sites.

Neighborhood business developments should be permitted in residential areas to facilitate purchase of convenience items. Such commercial facilities should not detract from the general neighborhood but provide adequate off-street parking, loading and unloading facilities, and proper buffering when adjoining residential areas. The neighborhood business area should contain both commercial and service facilities.

Convenience establishments in residential areas with medium to high density should be permitted. This commercial activity provides walk-in type trade for the immediate neighborhood. The convenience store should not be confused with neighborhood business which serves a larger area. Many of the convenience stores are in residential areas throughout the community and to place them into nonconforming uses would accomplish nothing. This type of district should be limited to uses that would serve only small well-defined residential areas, such as clustered subdivisions.

In Lenoir the special service district is designed for transitional uses between commercial and residential areas. This district provides ancillary service facilities for professional and service oriented activities. It also serves as buffers between the business and residential districts with accessibility only to a major thoroughfare. During the transition of these areas careful consideration should be given to the adjacent residential areas to prevent further encroachment.

Lenoir's general business district should be concentrated around the central business district to support the CBD and remove from the major thoroughfares. Much of the area adjacent to the CBD is in a transitional period oriented towards business growth and should be developed in a uniform manner providing for loading and off-street parking facilities. The general business district title is just that---"a title"---and reflects a wide range of uses that can be incorporated to support the central business district. Since strip development is undesirable and in the past has been oriented to general business, there is no need to encourage this development along the major streets and thoroughfares. The general business district should be recognized but within its proper perspective for future planning purposes.

Highway business provides vehicular oriented activities along major streets and highways in Lenoir and its surrounding area. The present practice of "strip" development along major streets and highways should be discouraged and the concept of arranging and grouping development to provide for the needs of the community as well as the traveling public. These businesses should have off-street loading and parking facilities, traffic control, and buffering for protection of adjacent residential and institutional properties. The present major streets and highways within Lenoir and surrounding area are not developed beyond the point of detering any adverse effects that may arise except for Harper Avenue. Proper planning for this area will reap rewards in the future as the Lenoir area continues to grow.

Industrial

Industrial districts are important to the economy. The terrain of Lenoir and surrounding area makes prime industrial land a scarce commodity and potential areas should be protected for growth. Generally, industry today is emphasizing performance standards that permit better potential for their location. Industry needs adequate access to major thoroughfares, rail and commercial transportation facilities, water and sewer service and fire protection; all of these commodities are available in the southern portion of the City with expanded sewer facilities soon to be completed. Needed are major collectors to carry the heavy traffic generated by the industries to major thoroughfares. To fulfill the needs of expanding industry it is anticipated that an additional 200 acres will be needed during the planning period. The trend for single-story construction, better access to transportation facilities, landscaping and parking facilities have made the suburban area advantageous for new or expanding industries. It is apparent, therefore, that suitable land must be available to industry, providing the advantages it seeks. Caution must be exercised to prevent encroachment into areas developing for commercial and residential uses as well as preventing commercial and residential development to encroach on industrial area.

The prime area for industrial development lies within the flood plains which have been delineated by the U. S. Army Corps of Engineers

in a report dated 1970. It is inevitable that much of this land will be used but development should leave a floodway adjacent to the creek for passage of flood waters.

Thoroughfare Plan

It is the intent of a thoroughfare plan to present judgments or policies for establishing a system of streets and highways for future construction. Lenoir's system of streets is presently taxed to the limit ---excepting portions of NC 18 and US 321. The City Council, recognizing the need for an updated thoroughfare plan, has contracted with the N. C. Department of Transportation for a study to include: travel volume data on existing major streets, travel patterns (external cordon origin-destination survey), synthesis of existing internal travel patterns, projection of travel desires to 1990 and 1995, assignment of 1972 and 1995 traffic to existing major street system and existing thoroughfare plan, evaluation of existing major street system and existing thoroughfare plan, determination of most feasible corridor locations for a system of major streets required to adequately serve 1995 traffic and land use, analysis of transit as an alternative transportation mode, assignment of 1990 and 1995 traffic to proposed thoroughfare plan, determination of number of travel lanes required on each of the proposed thoroughfares, preliminary cost estimates of proposed improvements, recommendations on construction priorities, recommendations on thoroughfare plan traffic operations, determination of number of parking spaces required in central business areas based on projected trips ends, preliminary functional designs of proposed thoroughfares on available topographic mapping, to update the existing thoroughfare plan; also a TOPICS (Traffic Operations Program to Increase the Capacity and Safety) has been initiated to work in conjunction with the proposed thoroughfare plan. To second guess these works being done would not be in the best interest of the City. It is recommended that upon completion and adoption of the thoroughfare study that it be made a part of the Land Development Plan as an Appendix.

APPENDIX I

ENVIRONMENTAL ASSESSMENT

Pursuant to the requirements and guidelines of the National Environmental Protection Act, the Council on Environmental Quality, the U. S. Department of Housing and Urban Development, and the State Environmental Policy Act, the following is a summary of environmental considerations regarding the recommendations in this comprehensive development plan.

Abstract

Through a field survey and the 1971 Neighborhood Analysis, a survey of existing land uses was conducted, analyzed, and future land use guidelines suggested.

Goals and objectives are proposed to assist the community in achieving its desired growth objectives as well as solving existing problems and taking advantage of arising opportunities. Methods of implementing goals and plan proposals are offered.

Environmental Impact

If implemented, the recommendations in this plan will have a beneficial environmental impact for the following reasons: (a) incompatible land uses will be minimized, thus upgrading the quality of life; (b) through prudent expansion of community facilities, natural resources will be preserved; (c) environmental risks and dangers such as building on unsuitable soils or in the flood plain will be minimized; (d) efficient use of land will be encouraged through succinct settlement patterns; (e) preservation of open spaces will be enhanced; (f) traffic circulation would be improved; (g) services and facilities could be efficiently and economically programmed, and (h) compact, controlled growth will mitigate the effects of loss of agricultural activity in the planning area. At this writing, the thoroughfare plan has not been adopted; hence, it would be unsound and premature to offer a statement on the environmental impact of that project without determined projects.

Adverse Environmental Consequences

The recommendations, if implemented, should have no undesirable environmental consequences. If not implemented, the following effects can be assumed:

Increased traffic congestion
Increase in rain water run-off
Incompatible development is likely to occur

Population densities could overburden services and facilities.

Economic development (e.g., commercial centers, industrial activities) if uncontrolled, could locate in environmentally impacted areas, resulting in further adverse effects.

Alternatives

Obviously, the alternative to planned growth is, in most cases, unguided growth, which brings additional environmental problems. As to alternative plans, the report did not outline any; rather, it suggested updating projections periodically and charting appropriate actions. This process would assure the compatible development of goals and objectives.

Relationship Between Short Term Uses of Man's Environment and Maintenance of Long-Term Productivity

This plan tries to balance short range and long range needs, programs and recommended policies, including environmental consequences. Short range programs are recommended to stimulate an improved environment and quality of life.

Irreversible Commitments of Resources

To implement the recommended plans and programs, the following irreversible commitments of resources would result:

land resources (from new building and/or construction activity)

economic resources (from public and private investments in streets, sewers, water systems, etc.)

human resources (policies directed toward adopting and enforcing a flood plain ordinance.)

Federal, State and Local Environmental Controls

All federal, state and local environmental controls currently being enforced will be applicable to the planning area.

Mitigation Measures

The Land Development Plan is in itself a mitigation measure designed to decrease undesirable environmental consequences of unplanned growth and development. Within the implementation section of the report, several devices such as zoning, subdivision regulations, etc. are

recommended for preparation and adoption. All of these are designed to preserve environmental quality when growth does occur.

Problems and Objections Raised by Federal, State and Local Agencies and Private Organizations and Individuals

No problems or objections have been expressed.